



Course specification

1-Basic information

Course Code:	S5-INMD
Course title :	Veterinary Internal Medicine
Academic year:	5th academic year
Program title:	B. Sc. Veterinary Medical sciences
Contact hours/ week	4 hours/week, (Lecture 2h/week, Practical 2h/week)
Approval Date	9/2017

2-Professional information

Overall aims of course:

This course aims to enable the student to:

- 1-Identify clinical problems, as the internal medicine is the close stone in faculty of veterinary medicine.
- 2-Determine the cause (s), the pathophysiology, the data for diagnoses, and the differential diagnoses of similar disease conditions.
- 3-Acquire basic knowledge and skills in the diagnosis and treatment of animal diseases.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

By the end of this course the student should be able to:

- a1. Recognize essential academic data for clinical studies.
- a2. Outline the general characterization of diseases in each animal species.
- a3. Define the structure and function of healthy animals, which will allow students to recognize and understand abnormal, and disease states of body systems.
- a4. Elicit the diagnoses and treatment of diseased cases.
- a5. Ascertain knowledge of the best practice in solving animal disease Problem.
- a6. Identify the causes, pathogenesis, clinical symptoms, investigations, treatment and prognosis of the most important internal medical diseases.
- a7. Acquire a brief information about the biochemistry abnormalities related to some nutritional deficiency, endocrine and metabolic diseases.

b- Intellectual skills

By the end of this course the student should be able to:

- b1. Compare between healthy and diseased animal.
- b2. Differentiate between the possible diseases causing the similar clinical manifestations.
- b3. Integrate the diagnoses by using lab and new modalities of diagnosis.
- b4. Interpret the results of clinical examination, lab and different modalities of diagnosis
- b5. Make a decision of diagnosis, prognosis and treatment and management of the disease problem.
- b6. Use drugs in correct manner and deal with the economical losses in the animal farming.



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c-Professional and practical skills:

By the end of this course the student should be able to:

- c1. Prepare the instruments and tools for clinical examination.
- c2. Perform the proper traditional clinical examination and design the clinical diagnosis cheat for animal clinical examination in individual and herd animal.
- c3. Analyze the data of incidence and clinical findings of disease conditions.
- c4. Proper uses of different medications and their route of administrations in different animal species.

d-General and transferable skills

By the end of studying the course, the student should be able to:

- d1. Work in groups and manage time.
- d2. Demonstrate the clinical work under the field condition by medical campaigns.
- d3. Identify and diagnose the different diseases.
- d4. Correctly use drugs and treatment in the field.
- d5. Prevent and control of different diseases.
- d6. Maintain a professional image concerning behavior, dress and speech.
- d7. Be responsible toward work.
- d8. Communicate effectively with public, colleagues and appropriate authorities.
- d9. Achieve computer skills necessary to make use of medical databases and use the internet for communication.

4-Topics and contents

5th year-1st semester Special internal medicine (B) (Lec. 2 h./week, Pract. 2h./week)	1-Diseases of digestive system of ruminants. (principles of digestive tract disorders, stomatitis, parotitis, pharyngitis, pharyngeal obstruction, pharyngeal paralysis, esophagitis, choke, tympany, impaction, vagus indigestion, traumatic reticuloperitonitis, abomasal displacement, abomasal ulcer, intestinal obstruction, hepatitis, hemorrhagic bowel syndrome)	36	18	18
	2-Diseases of digestive system of equines. (gastritis, gastric ulcers, gastric dilatation, intestinal obstruction, cecal impaction, peritonitis), Diseases of digestive system of pets (tonsillitis, gastritis, gastric and peptic ulcers)	12	8	4



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	3- Special examination of the digestive tract. (ultrasonography, rumen juice examination)	4	-	4
Total		52	26	26

5th year-2nd semester Special internal medicine (B) (Lec. 2 h./week, Pract. 2h./week)	1- Diseases of nutritional deficiencies. (Deficiencies of energy and protein, Diseases associated with deficiencies of mineral nutrients , Disease associated with deficiencies of fat-soluble vitamins, Diseases associated with deficiency of water-soluble vitamins)	10	10	-
	2- Diseases of metabolic disorders in farm animals. (Milk fever, aclempesia, ketosis, fatty liver, hypomagnesaemia, hypophosphataemia, pregnancy toxemia, downer cow syndrome azoturia in equines)	8	8	-
	3- Introduction to Veterinary neurology and diseases of nervous system in animal species. (Principles of nervous dysfunction, Clinical manifestations of disease of the nervous system, Special examination of the nervous system, Principles of treatment of diseases of the nervous system, Pathophysiological mechanisms of nervous system disease, diseases of the brain, Diseases o f the spinal cord)	12	8	4
	4- Clinical examination cards	14	-	14
	5- Clinical cases and clinical reports	8	-	8
Total		52	26	26

5-Teaching and learning methods

5.1. Lectures (brain storming, discussion) in which one or more of the following facilities are used:

5.1.1. White board and data-show presentations.

5.1.2. Illustrations, charts, CD's, PowerPoint slides and recorded videos.

5.2- Self learning by preparing essays and presentations (computer researches and faculty



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library)

5.3- Practical (practical lessons in faculty farm, clinical cases from the faculty farm or from outside the faculty, ultrasonography, endoscopy, mouth gags, stomach tubes, catheters).

5.4- Training visits (Visits to animal farms).

6-Teaching and learning methods for the students with disabilities

Not applicable

7-Student assessment

7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Final Exam	a2-a7	b1-b6,c3	----	----
Practical Exam	a1-a2,	b2, b6	c1-c4	-----
Oral Exam	a1-a7	b1-b6	c1,c3	d1-d9

7.2. Assessment schedules/semester:

Method	Week(s)
Practical exams	14 th week
Final exams	15 th -17 th weeks
Oral Exam	Managed by the department

7.3. Weight of assessments/per semester:

Assessment	Weight of assessment
Practical exams	30%
Final exams	50%
Oral exams	20%
Total	100%

8- List of references

8.1. Notes and books

-None.

8.2. Essential books:

1- Veterinary clinical diagnosis (1984): W. R. Kelly 1984, 3rd. Ed, Billiere Tindall, London.

2-Veterinary medicine: a textbook of the diseases of cattle sheep, pigs, goats and horses(2010): Radostits, O. M., Blood D. C., Gay, C. C., Arundal, J. H., 10th. Ed., Billiere Tindall, London.

3- Large Animal Internal Medicine (1998): Timothy, H. Oglivie, Williams & Wilkins.

4- Small Animal Internal Medicine (1997): Darcy, Show and Sherri Ihle, Williams & Wilkins

**These books are available in the library of faculty of Veterinary Medicine, Beni-Suef University.*



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8.3. Recommended texts

1- Veterinary clinical examination and diagnosis (2000): Radostits O. M. , 1st. Ed. Billiere Tindall, London

2 - Large animal internal medicine (1998): Bradford P. Smith, Mosby-Yearbook, Inc. USA.

**These books are found in the library of faculty of veterinary medicine, Beni-Suef University.*

8.4. Journals

- Journal of Veterinary Internal Medicine - Wiley Online Library
- JVIM - American College of Veterinary Internal Medicine
- Veterinary Medicine International — an Open Access Journal
- Journal of Equine Veterinary Science - Elsevier
- The Journal of Applied Research in Veterinary Medicine
- British Veterinary Journal - ScienceDirect.com
- Journal of Equine Veterinary Science

8.5-Websites:

- www.ekb.eg/ar: Egyptian knowledge bank
- www.Sciencedirect.com
- www.Pupmed.com
- www.google.com
- www.FAO

Course Coordinators

Dr/ Morad M. Mahmmoud

Lecturer of Veterinary Internal Medicine
Faculty of Veterinary Medicine,
Beni-Suef University

Head of Department

Prof. Dr/ Hussein Ebrahim Hussein

Professor of Infectious diseases
Faculty of Veterinary Medicine,
Beni-Suef University

Topics		Week	Intended learning outcomes of course (ILOs)			
			K&U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
First Semester						
1.	Diseases of digestive system of ruminants. (principles of digestive tract disorders, stomatitis, parotitis, pharyngitis, pharyngeal obstruction, pharyngeal paralysis, esophagitis, choke, tympany, impaction, vagus indigestion, traumatic reticulopertinitis, abomasal displacement, abomasal ulcer, intestinal obstruction, hepatitis, hemorrhagic bowel syndrome)	Lectures: 1-9	a1-a7	b1-b6	----	----
		Practical: 1-9	-----	-----	c1-c4	d1-d9
2.	Diseases of digestive system of equines. (gastritis, gastric ulcers, gastric dilatation, intestinal obstruction, cecal impaction, peritonitis)	Lectures:10-13	a1-a7	b1-b6	----	-----
		Practical: 10-11	-----	----	c1-c4	d1-d9
3.	Special examination of the digestive tract. (ultrasonography, rumen juice examination)	Practical:12-13	----	-----	c1-c4	d1-d9

Second Semester						
1.	Diseases of nutritional deficiencies. (Deficiencies of energy and protein, Diseases associated with deficiencies of mineral nutrients , Disease associated with deficiencies of fat-soluble vitamins, Diseases associated with deficiency of water-soluble vitamins)	Lectures: 1-5	a1-a7	b1-b6	-	--
2.	Diseases of metabolic disorders and endocrinology in farm animals. (Milk fever, ketosis, fatty liver, hypomagnesaemia, hypophosphataemia, pregnancy toxemia, downer cow)	Lectures: 6-9	a1-a7	b1-b6	-	--

	syndrome azoturia in equines)					
3.	Introduction to Veterinary neurology and diseases of nervous system in animal species. (Principles of nervous dysfunction, Clinical manifestations of disease of the nervous system, Special examination of the nervous system, Principles of treatment of diseases of the nervous system, Pathophysiological mechanisms of nervous system disease, diseases of the brain, Diseases of the spinal cord)	Lectures: 10-13	a1-a7	b1-b6	----	-----
		Practical: 1-2	-----	--	c1-c4	d1-d9
4.	Clinical examination card and reports	Practical: 3-9	-----	--	c1-c4	d1-d9
5.	Clinical cases and clinical reports	Practical: 10-13	---	---	c1-c4	d1-d9